



1742

PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of

Kazumi NAITO

Appln. No.: 10/043,102

Group Art Unit: 1742

Confirmation No.: 6751

Examiner: Ngoclan T. MAI

Filed: January 14, 2002

Attorney Docket No.: Q68095

For: NIOBIUM POWDER, ITS SINTERED BODY, AND CAPACITOR COMPRISING THE SAME

RESPONSE UNDER 37 C.F.R. § 1.111

MAIL STOP NON-FEE AMENDMENT

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

Sir:

Please consider the remarks below in response to the Action mailed March 31, 2003.

Claims 1-20 are all the claims pending in the application.

I. Paragraph Nos. 1-7: Restriction Requirement

Applicant affirms his election without traverse of Group I, claims 1-3 (drawn to a niobium powder).

II. Paragraph No. 9: Rejection Under 35 U.S.C. § 103

Claims 1-3 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over U.S. Patent No. 4,954,169 to Behrens in view of U.S. Patent No. 6,051,044 to Fife.

Applicant respectfully traverses.

First, there is no motivation to combine Behrens and Fife and arrive at the presently claimed invention.

RESPONSE

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Behrens discloses a preference for tantalum (column 2, lines 63-64), and each of Behrens' examples employs tantalum powders.

Fife was filed in May 1998, which is about nine years after the filing of Behrens (June 1989). Fife discloses that, while there was initial hope that niobium might be a suitable replacement for tantalum, niobium was not capable of replacing tantalum in the electrolytic capacitor market (Applicant refers to column 1, lines 9-35).

It is well-settled that the prior art must be considered in its entirety, *i.e.* as a whole, and any portion therein that would lead away from the claimed invention is evidence of nonobviousness (*see, W.L. Gore & Assoc. v. Garlock, Inc.*, 220 USPQ 303 (Fed. Cir. 1983)). Applicant respectfully submits that the disclosures of Behrens and Fife, taken as a whole, teach away from combining Behrens and Fife to provide the presently claimed niobium powder, including a nitrogen content of 500-7,000 ppm by weight.

Second, even if the Examiner is not persuaded that Behrens and Fife would not have been combined to arrive at the claimed invention, the superior results achieved by the claimed invention are unexpected from the combined disclosures of Behrens and Fife and serve to rebut any alleged case of *prima facie* obviousness.

Behrens discloses an alkali content of not more than 30 ppm and an iron, chromium and nickel content of not more than 30 ppm (column 2, lines 57-64), but Behrens is silent on the content of cobalt and silicon. Fife is also silent on the content of cobalt and silicon in the niobium powder.

Claim 1, on the other hand, recites that the amount of cobalt and silicon present in the claimed niobium powder is not more than 100 ppm by weight.

Applicant is submitting herewith a Rule 132 Declaration. The Declaration shows that it is important for the amount of cobalt and the amount of silicon not to exceed 100 ppm by weight in a niobium powder in order to provide a desired electrolytic capacitor having a reduced leakage.

RESPONSE
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For the foregoing reasons, Applicant respectfully requests that the Examiner reconsider and withdraw this §103 rejection of claims 1-3.

Reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



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WASHINGTON OFFICE



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